

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method ~~for managing cryptographic keys that are specific to a personal device~~, comprising:

retrieving in a secure processing point separated from and arranged in communication with the personal device, a unique chip identifier from a read-only storage of an integrated circuit chip included in ~~the~~ a personal device;

the secure processing point assembling a data package and loading the data package in the personal device for storage therein, the data package including at least one cryptographic key specific to the personal device;

receiving at the secure processing point, in response to storing the data package, a backup data package from the personal device, which backup data package is the data package encrypted with a unique secret chip key stored in a tamper-resistant secret storage of the integrated circuit chip included in the personal device;

associating the unique chip identifier with the received backup data package; and
storing the backup data package and the associated unique chip identifier in a permanent public database separated from the personal device;

wherein the secure processing point further performs:

associating a unique device identity with the unique chip identifier;

signing the result of said associating with a manufacturer private signature key corresponding to a manufacturer public signature key stored in a read-only memory of the personal device, thereby generating a certificate for the unique device identity;

storing the certificate in the device; and

storing the unique device identity and the certificate in association with the backup data package and the unique chip identifier in the permanent public database.

2. (canceled)

3. (original) The method as claimed in claim 1, wherein the at least one cryptographic key includes at least one key to be used for a secure, key based communication channel between a personal device manufacturer and the personal device.

4. (original) The method as claimed in claim 3, wherein the at least one key to be used for a secure, key based communication channel includes a symmetric key.

5. (original) The method as claimed in claim 4, wherein the symmetric key is generated as a function of a master key and the unique device identity.

6. (original) The method as claimed in claim 3, wherein the at least one key to be used for a secure, key based communication channel includes a private/public key pair.

7. (currently amended) The method as claimed in claim 6, wherein the private/public key pair either is:

generated by the secure processing point during assembly of the personal device; or

generated and stored in advance in a secure database before assembly of the personal device, in which latter case the cryptographic keys stored in advance of assembly are removed from the ~~secret~~secure database after reception of the backup data package.

8. (currently amended) The method as claimed in claim ~~21~~1, wherein the personal device is a wireless communications terminal and the unique device identity is an identifier which identifies the wireless communications terminal in a wireless communications network.

9. (currently amended) A system ~~for managing cryptographic keys that are specific to a personal device~~, comprising:

at least one personal device, and

a secure processing point, which secure processing point is separated from and arranged in communication with the personal device,

wherein the at least one personal device includes an integrated circuit chip with a unique chip identifier in a read-only storage and a unique secret chip key in a tamper-resistant secret storage;

wherein the secure processing point includes a processor configured for retrieving the unique chip identifier and for assembling a data package and loading the data package in the personal device for storage therein, the data package including at least one cryptographic key specific to said personal device;

wherein the at least one personal device includes a processor configured for encrypting the received data package with the unique secret chip key and transferring a resulting backup data package back to the secure processing point; and

wherein the processor of the secure processing point is arranged for storing the received backup data package in association with the unique chip identifier in a permanent public database separated from the personal device;

wherein the processor of the secure processing point further is arranged for:
associating a unique device identity with the unique chip identifier;
signing the result of the association with a manufacturer private signature key
corresponding to a manufacturer public signature key stored in a read-only memory of
the personal device, thereby generating a certificate for the unique device identity;
storing the certificate in the personal device; and
storing the unique device identity and the certificate in association with the
backup data package and the unique chip identifier in the permanent public database.

10. (canceled)

11. (original) The system as claimed in claim 9, wherein the at least one cryptographic key includes at least one key to be used for a secure, key based communication channel between a personal device manufacturer and the personal device.

12. (original) The system as claimed in claim 11, wherein the at least one key to be used for a secure, key based communication channel includes a symmetric key.

13. (original) The system as claimed in claim 12, wherein the symmetric key is generated as a function of a master key and the unique device identity.

14. (original) The system as claimed in claim 11, wherein the at least one key to be used for a secure, key based communication channel includes a private/public key pair.

15. (currently amended) The system as claimed in claim 14, wherein the processor of the secure processing point either is:

arranged for generating the private/public key pair during assembly of the personal device; or

arranged for retrieving the private/public key pair from a secure database, in which the key pair has been stored in advance before assembly of the device, in which latter case the secure processing point further is arranged for removing the key pair from the ~~secret~~ secure database after reception of the backup data package.

16. (original) The system as claimed in claim 9, wherein the personal device is a wireless communications terminal and the unique device identity an identifier which identifies the wireless communications terminal in a wireless communications network.

17. (currently amended) ~~A method of recovering a backup data package of a personal device, which backup data package has been assembled and stored in accordance with claim 1, the method comprising:~~

reading a unique chip identifier from a read-only storage of the a personal device;
transmitting the chip identifier to a public database;

receiving from the public database the a backup data package which has been assembled and stored in accordance with claim 1 and corresponding to the transmitted chip identifier; and

storing the received backup data package in the personal device.

18. (currently amended) A personal device comprising:

an integrated circuit chip with a unique chip identifier in a read-only storage and a unique secret chip key in a tamper-resistant secret storage;

a processor configured for outputting the unique chip identifier; and

a memory for storing a received data package including at least one cryptographic key;

wherein the processor is further configured for encrypting the received data package with the unique secret chip key and outputting a resulting backup data package to a permanent public database separated from said personal device;

the personal device further comprising:

a read-only memory storing a manufacturer public signature key, wherein the memory for storing the received data package is further for storing a received certificate, which corresponds to a certificate stored in association with the backup data package in the public database and which has been signed with a manufacturer private signature key corresponding to the manufacturer public signature key.

19. (canceled)

20. (original) The personal device as claimed in claim 18, wherein the at least one cryptographic key includes at least one key to be used for a secure, key based communication channel between a personal device manufacturer and the personal device.

21. (original) The personal device as claimed in claim 20, wherein the at least one key to be used for a secure, key based communication channel includes a symmetric key.

22. (original) The personal device as claimed in claim 21, wherein the symmetric key is generated as a function of a master key and the unique device identity.

23. (original) The personal device as claimed in claim 20, wherein the at least one key to be used for a secure, key based communication channel includes a private/public key pair.

24. (original) The personal device as claimed in claim 18, wherein the personal device is a wireless communications terminal and the unique device identity is an identifier which identifies the wireless communications terminal in a wireless communications network.

25. (currently amended) A secure processing point ~~for managing cryptographic keys that are specific to personal devices~~ comprising:

a processor configured for:

retrieving a unique chip identifier from a read-only storage of an integrated circuit chip included in a personal device that is separated from said secure processing point;

assembling a data package and loading the data package in the personal device for storage therein, the data package including at least one cryptographic key specific to the personal device;

receiving an encrypted version of the data package, in the form of a backup data package, from the personal device in response to the stored data package; and

storing the received backup data package in association with the unique chip identifier in a permanent public database separated from the personal device;

associating a unique device identity with the unique chip identifier;

signing the result of the association with a manufacturer private signature key corresponding to a manufacturer public signature key stored in a read-only memory of the device, thereby generating a certificate for the unique device identity;

storing the certificate in the device; and

storing the unique device identity and the certificate in association with the backup data package and the unique chip identifier in the permanent public database.

26. (canceled)

27. (currently amended) A device ~~for managing cryptographic keys that are specific to a personal device~~, comprising:

means for retrieving in a secure processing point separated from and arranged in communication with the personal device, a unique chip identifier from a read-only storage of an integrated circuit chip included in ~~the~~a personal device;

means for assembling by the secure processing point a data package and loading the data package in the personal device for storage therein, the data package including at least one cryptographic key specific to the personal device;

means for receiving at the secure processing point, in response to storing the data package, a backup data package from the personal device, which backup data package is the data package encrypted with a unique secret chip key stored in a tamper-resistant secret storage of the integrated circuit chip included in the personal device;

means for associating the unique chip identifier with the received backup data package; and

means for storing the backup data package and the associated unique chip identifier in a permanent public database separated from the personal device;

wherein the secure processing point comprises:

means for associating a unique device identity with the unique chip identifier;

means for signing the result of said associating with a manufacturer private signature key corresponding to a manufacturer public signature key stored in a read-only memory of the personal device, thereby generating a certificate for the unique device identity;

means for storing the certificate in the personal device; and

means for storing the unique device identity and the certificate in association with the backup data package and the unique chip identifier in the permanent public database.